

WMS 400/450/470

Service Manual 07/14

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Last modification:

New part numbers for WMS470 Band D and M boards

New part numbers for Band X boards

Page 6 housing HT400 replaced by housing HT450

Page 11, display cover for PT470 added

WMS470 parts added

Page 14 power supplies added

crossed out page 13 pos.1

add new frequency band VII and VIII

new partnumbers on page 6 pos.12, page 10 pos.2, page 13 pos.7

new and corrected partnumbers on page 13

The complete WMS 400/450/470 - Family

HT400/450/470



PT400/450/470



SR400/450/470



PSU4000



PS4000



CU400



ASU4000



AB4000



RA4000B



RA2B



**PSU4000, PS4000, RA4000B,
RA2B, ASU4000, AB4000.**

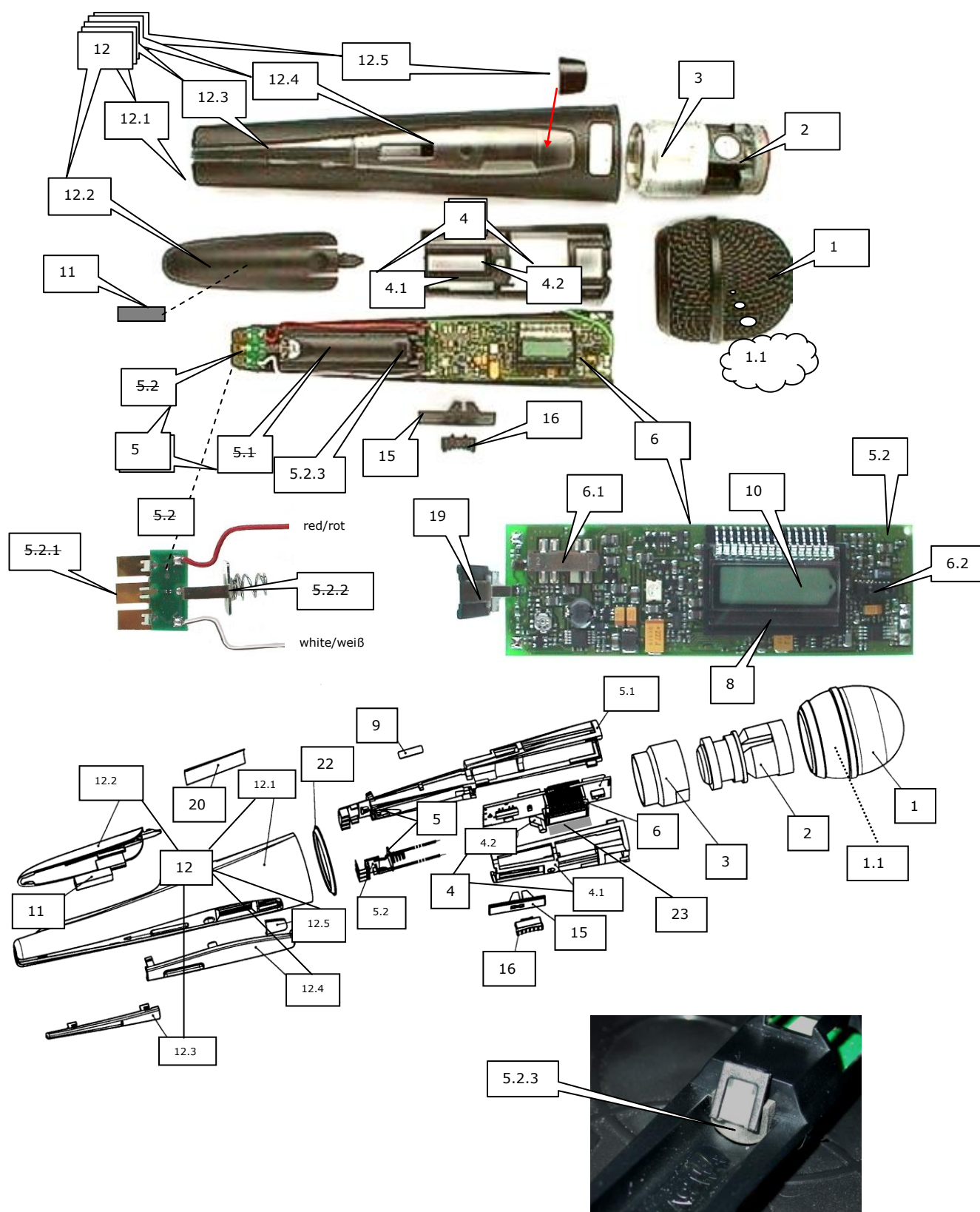
Those components belonging to the
WMS 4000 system are contained in
the WMS 4000 manual only.
Geräte aus dem WMS 4000
Programm sind nur im WMS 4000
Service Manual enthalten.

Frequency range Mhz

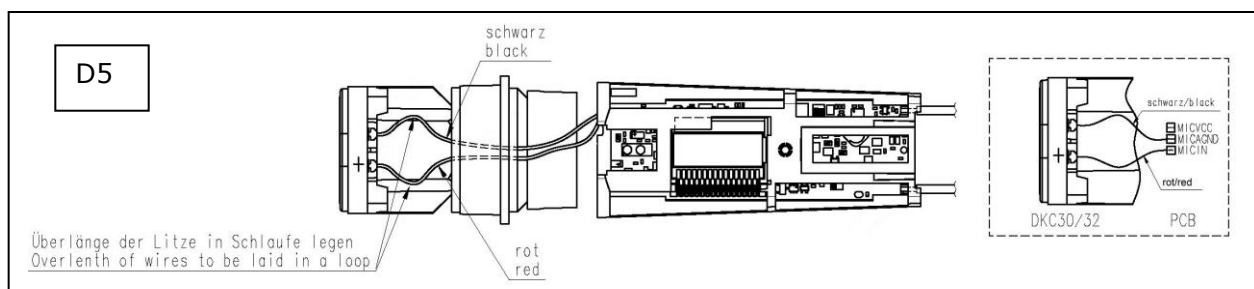
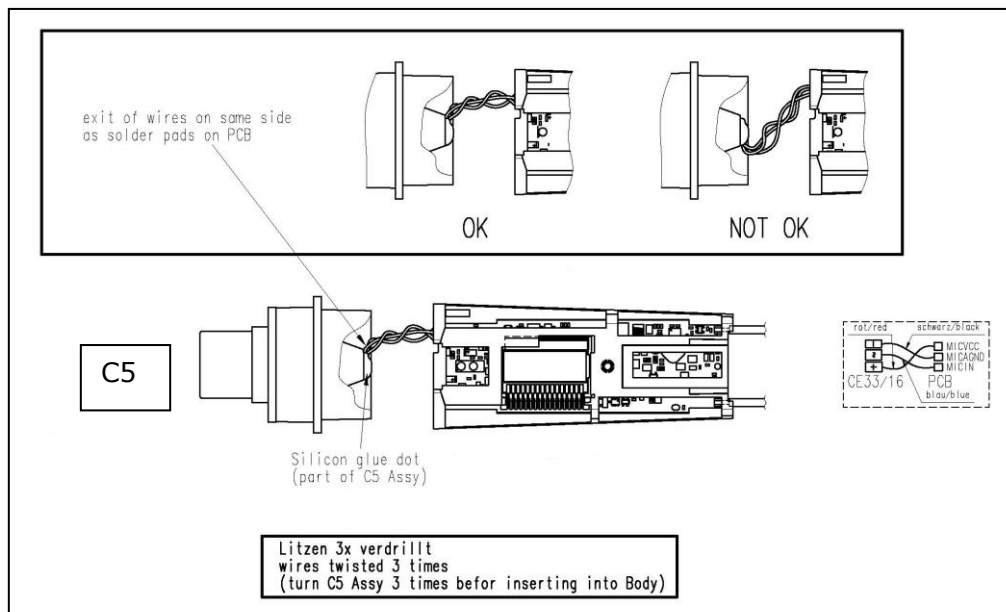
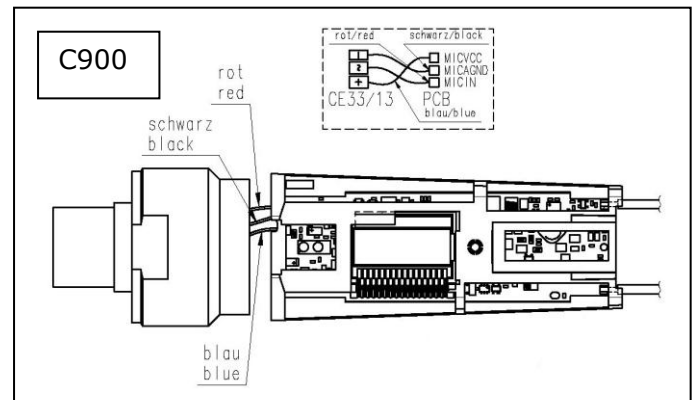
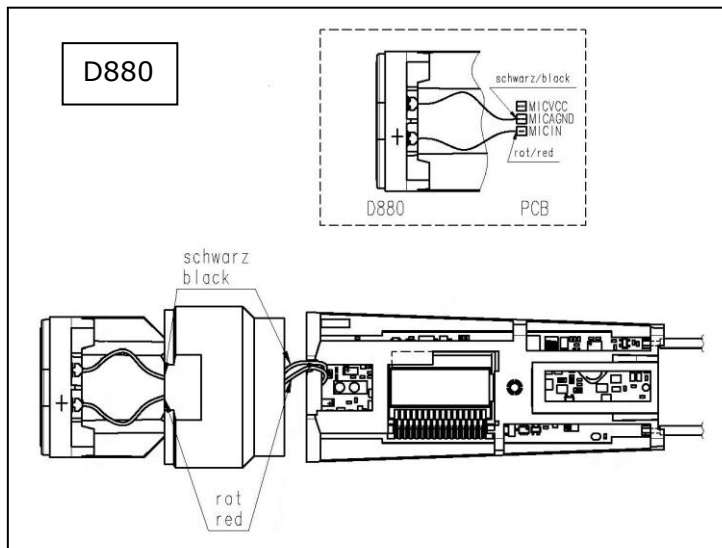
| | |
|-----------|-----------|
| Band I | 650 - 680 |
| Band II | 680 - 710 |
| Band III | 720 - 750 |
| Band IV | 760 - 790 |
| Band V | 790 - 829 |
| Band VI | 835 - 865 |
| Band VII | 500 - 530 |
| Band VIII | 570 - 600 |
| Band IX | 600 - 630 |
| Band X | 823 - 832 |
| Band D | 863 - 865 |
| Band M | 826 - 832 |

| | |
|-----|----------------------|
| SR | Stationary receiver |
| HT | Handheld Transmitter |
| PT | Pocket Transmitter |
| PS | Power Splitter |
| RA | Receiver antenna |
| AB | Antenna booster |
| ASU | Antenna supply unit |
| PSU | Power supply unit |
| CU | Charging unit |

HT 400 (2931Z00..)
HT 450 (3231Z90..)
HT 470 (3301Z90..)



HT400/450/470 Verkabelung / Wiring



HT 400/450/470 Parts list

HT 400/450/470 Stückliste

HT400/D880...A HT400/C900...B HT450/C5...C HT450/D5...D HT470/C5...E HT470/D5...F

| Description | Item Pos. | Part number Bestellnummer | Quantity Stück | | | | | | Bezeichnung |
|-----------------------------------|-----------|------------------------------|-------------------|----|---|---|---|---|------------------------------|
| | | | A | B | C | D | E | F | |
| Wire-mesh cap | 1 | 9999N07180 | 1 | - | - | - | - | - | Gitterkappe |
| Wire-mesh cap | 1 | 9999N07190 | - | 1 | - | - | - | - | Gitterkappe |
| Wire-mesh cap | 1 | 3138M11040 | - | - | 1 | - | 1 | - | Gitterkappe |
| Wire-mesh cap | 1 | 3138M11030 | - | - | - | 1 | - | 1 | Gitterkappe |
| Foam insert | 1.1 | 70300160 | 1 | - | - | - | - | - | Schaumeinlage |
| Foam insert | 1.1 | 70302090 | - | 1 | - | - | - | - | Schaumeinlage |
| Foam insert | 1.1 | 3138Z25020 | - | - | 1 | - | 1 | - | Schaumeinlage |
| Foam insert | 1.1 | 3138Z25010 | - | - | - | 1 | - | 1 | Schaumeinlage |
| Dynamic capsule D880 | 2 | 2610Z00300 | 1 | - | - | - | - | - | Dynamische Kapsel D880 |
| Electret capsule C900 | 2 | 2931M05010 | - | 1 | - | - | - | - | Elektretkapsel C900 |
| Electret capsule C5 | 2 | 3231M02010 | - | - | 1 | - | 1 | - | Elektretkapsel C5 |
| Dynamic capsule D5 | 2 | 2610Z00320 | - | - | - | 1 | - | 1 | Dynamische Kapsel D5 |
| Capsule bearing | 3 | 2931Z22010 | 1 | 1+ | - | - | - | - | Kapsellager |
| Adapter C5 D5 | 3.1 | 3231Z10010 | - | - | 1 | 1 | 1 | 1 | Adapter C5 D5 |
| Cage bottom assembly | 4 | 2931M08010 | 1 | 1 | 1 | 1 | 1 | 1 | Käfig Unterteil, komplett |
| Cage bottom | 4.1 | 2931Z12020 | 1 | 1 | 1 | 1 | 1 | 1 | Käfig Unterteil |
| Light guide | 4.2 | 2932Z17010 | 1 | 1 | 1 | 1 | 1 | 1 | Lichtleiter |
| Cage top assembly | 5 | 2931M10010 | 1 | 1 | 1 | 1 | 1 | 1 | Käfig Oberteil, komplett |
| Cage top | 5.1 | 2931Z11010 | 1 | 1 | 1 | 1 | 1 | 1 | Käfig Oberteil |
| Charging board, compl. | 5.2 | 2931M02010 | 1 | 1 | 1 | 1 | 1 | 1 | Ladeprint, komplett |
| Charging contact | 5.2.1 | 2931Z30010 | 3 | 3 | 3 | 3 | 3 | 3 | Ladekontakt |
| Battery contact "-" | 5.2.2 | 2931Z19010 | 1 | 1 | 1 | 1 | 1 | 1 | Batteriekontakt "-" |
| Battery contact damping | 5.2.3 | 2931Z44010 | 1 | 1 | 1 | 1 | 1 | 1 | Batteriekontakt Federung |
| Printed circuit board, complete | 6 | 2931M.... *) 3231M.... *) | 1 | 1 | 1 | 1 | - | - | Print, komplett |
| Printed circuit board, complete | 6 | 3301M.... *) | - | - | - | - | 1 | 1 | Print, komplett |
| Slide switch | 6.1 | 9040E00100 | 1 | 1 | 1 | 1 | 1 | 1 | Schiebeschalter |
| IR-Transceiver | 6.2 | 9050E00040 | 1 | 1 | 1 | 1 | 1 | 1 | IR-Sende-Empfänger |
| Display holder | 8 | 2931Z29010 | 1 | 1 | 1 | 1 | 1 | 1 | Displayhalter |
| Sticker | 9 | 4717S00010 | 1 | 1 | 1 | 1 | 1 | 1 | Schild |
| Display | 10 | 2931Z35010 | 1 | 1 | 1 | 1 | 1 | 1 | Display |
| Foam pad | 11 | 2931Z39010 | 1 | 1 | 1 | 1 | 1 | 1 | Schaumstoffstreifen |
| Housing, complete | 12 | 3231M07010 | 1 | 1 | 1 | 1 | - | - | Gehäuse, komplett mit |
| Housing, complete | 12 | 3231M07020 | - | - | - | - | 1 | 1 | Gehäuse, komplett |
| Housing | 12.1 | 2931Z10040 | 1 | 1 | 1 | 1 | - | - | Gehäuse |
| Housing | 12.1 | 2931Z10070 | - | - | - | - | 1 | 1 | Gehäuse |
| Battery cover | 12.2 | 2931Z13010 | 1 | 1 | - | - | - | - | Batteriedeckel |
| Battery cover | 12.2 | 2931Z13020 | - | - | 1 | 1 | 1 | 1 | Batteriedeckel |
| Identification plate, black | 12.3 | 2931Z15020 | 1 | 1 | - | - | - | - | Indikatorplatte, schwarz |
| Identification plate, black | 12.3 | 2931Z15220 | - | - | 1 | 1 | 1 | 1 | Indikatorplatte, schwarz |
| Identification plate, transparent | 12.3 | 2931Z15010 | 1 | 1 | 1 | 1 | 1 | 1 | Indikatorplatte, transparent |
| Display cover | 12.4 | 2931Z14010 | 1 | 1 | 1 | 1 | 1 | 1 | Display - Abdeckung |
| IRDA - window | 12.5 | 2931Z16010 | 1 | 1 | 1 | 1 | 1 | 1 | IRDA - Fenster |
| Slider | 15 | 2931Z17010 | 1 | 1 | 1 | 1 | 1 | 1 | Schieber |
| Switch knob | 16 | 2931Z18010 | 1 | 1 | 1 | 1 | 1 | 1 | Schalterknopf |
| Battery contact "+" | 19 | 2931M04010 | 1 | 1 | 1 | 1 | 1 | 1 | Batteriekontakt "+" |
| Device sticker, HT400 | 20 | 4764S00.. **) | 1 | 1 | - | - | - | - | Typenschild, HT400 |
| Device sticker, HT450 | 20 | 4789S10.. **) | - | - | 1 | 1 | - | - | Typenschild, HT450 |
| Device sticker, HT470 | 20 | 4833S00.. **) | - | - | - | - | 1 | 1 | Typenschild, HT470 |
| Ring, gilded | 22 | 2931Z37010 | - | 1 | - | - | - | - | Goldring |
| Foam pad | 23 | 2931Z28010 | 1 | 1 | 1 | 1 | 1 | 1 | Schaumstoffstreifen |

| | | | | | | | | | |
|-------------------------|----|------------|---|---|---|---|---|---|----------------------------------|
| Microphone clip SA63 | -- | 6001H63010 | 1 | 1 | 1 | 1 | - | - | Stativklammer SA63 |
| Microphone clip SA45 | -- | 6001H63070 | - | - | - | - | 1 | 1 | Stativklammer SA45 |
| Name-plate sheet, white | -- | 2931Z36010 | 1 | 1 | 1 | 1 | - | - | Blatt mit Einlageschildern, weiß |

*) Frequency-depending, please see table below for part numbers,
part number 3231M.... is only for HT450 Bd VII and VIII

*) Frequenzabhängig, bitte Bestellnummern unten stehender Tabelle entnehmen
Bestellnummer 3231M.... ist nur für HT450 Bd VII and VIII

) last two digits equal to the **2931Z00.. variation number of table below

) Letzte 2 Stellen gleich der **2931Z00.. Variantennummer laut untenstehender Tabelle

+) contained in 2931M0501 / in 2931M0501 enthalten

Main board HT400/450

| | HT 400 / D 880 2931Z00.. | | | | | | HT450 / D5 3231Z90.. | | | | | | |
|------------|--------------------------|----------|-----------|-----------|-----------|-----------|----------------------|-----------|-------------|----------------|-----------|-----------|------------|
| | 01 | 02 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 15 | 16 | 17 | 18 |
| 2931 M.... | I 50 | II 50 | V-F 10 | V-A 50 | V-C 20 | V-J 10 | V-E 50 | III 10 | III-K 10 | VI-A ISM-10 | I-R 30 | VII 50 | VIII 50 |
| 21510 | x | | | | | | | | | | | | |
| 21320 | | | | | | | | | | | x | | |
| 22510 | | x | | | | | | | | | | | |
| 23110 | | | | | | | | x | | | | | |
| 23120 | | | | | | | | | x | | | | |
| 25510 | | | | x | | | | | | | | | |
| 25220 | | | | | x | | | | | | | | |
| 25130 | | | | | | x | | | | | | | |
| 26110 | | | | | | | | | | x | | | |
| 25150 | | | x | | | | | | | | | | |
| 25540 | | | | | | | x | | | | | | |
| 3231 M.... | | | | | | | | | | | | VII 50 | VIII 50 |
| 2751 | | | | | | | | | | | | x | |
| 2851 | | | | | | | | | | | | | x |
| 4764S | 10010 | 10020 | 10060 | 10070 | 10080 | 10090 | 10100 | 10110 | 10120 | 10150 | 10160 | - | - |
| 4789S | 10010 | 10020 | 10060 | 10070 | 10080 | 10090 | 10100 | 10110 | 10120 | 10150 | 10160 | 10390 | 10400 |
| | HT 400 / C900 2931Z00.. | | | | | | HT450 / C5 3231Z90.. | | | | | | |
| | 21 | 22 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 35 | 36 | 37 | 38 |
| 2931 M.... | I 50 | II 50 | V-F 10 | V-A 50 | V-C 20 | V-J 10 | V-E 50 | III 10 | III-K 10 | VI-A ISM-10 | I-R 30 | VII 50 | VIII 50 |
| 21510 | x | | | | | | | | | | | | |
| 21320 | | | | | | | | | | | x | | |
| 22510 | | x | | | | | | | | | | | |
| 23110 | | | | | | | | x | | | | | |
| 23120 | | | | | | | | | x | | | | |
| 25510 | | | | x | | | | | | | | | |
| 25220 | | | | | x | | | | | | | | |
| 25130 | | | | | | x | | | | | | | |
| 26110 | | | | | | | | | | x | | | |
| 25150 | | | x | | | | | | | | | | |
| 25540 | | | | | | | x | | | | | | |
| 3231 M.... | | | | | | | | | | | | VII 50 | VIII 50 |
| 27510 | | | | | | | | | | | | x | |
| 28510 | | | | | | | | | | | | | x |
| 4764S | 10210 | 10220 | 10260 | 10270 | 10280 | 10290 | 10300 | 10320 | 10320 | 10350 | 10360 | - | - |
| 4789S | 10210 | 10220 | 10260 | 10270 | 10280 | 10290 | 10300 | 10320 | 10320 | 10350 | 10360 | 10410 | 10420 |

Main board HT470

| | HT470 D/C 3301Z90... | | | | | | | | | | | | | |
|--------------|----------------------|-----------|-------------|-----------|-----------|-----------|----------------|-----------|------------|----------|------------|---------|---------|---------|
| | I 50 | III 50 | III-K 10 | V-A 50 | V-B 10 | V-D 10 | VI-A ISM-10 | VII 50 | VIII 50 | IX 50 | IX-U 10 | X 50 | D 10 | M 50 |
| 3301 M... | | | | | | | | | | | | | | |
| 21510 | X | | | | | | | | | | | | | |
| 23510 | | X | | | | | | | | | | | | |
| 23520 | | | X | | | | | | | | | | | |
| 25510 | | | | X | | | | | | | | | | |
| 25520 | | | | | X | | | | | | | | | |
| 25540 | | | | | | X | | | | | | | | |
| 26110 | | | | | | | X | | | | | | | |
| 27510 | | | | | | | | X | | | | | | |
| 28510 | | | | | | | | | X | | | | | |
| 29510 | | | | | | | | | | X | | | | |
| 29520 | | | | | | | | | | | X | | | |
| 10510 | | | | | | | | | | | | X | | |
| 04100 | | | | | | | | | | | | | X | |
| 13500 | | | | | | | | | | | | | | X |

| | Device sticker | | | | | | | | | | | | | |
|-------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| D5 4833S | 00010 | 00190 | 00120 | 00070 | 00090 | 00060 | 00150 | 00390 | 00400 | 00140 | 00200 | 00220 | 00240 | 00230 |
| C5 4833S | 00210 | 00430 | 00320 | 00270 | 00090 | 00260 | 00350 | 00410 | 00420 | 00340 | 00500 | 00450 | 00440 | 0043 |

Repair Hints / Reparaturhinweise

To dismantle the HT 400 please proceed as follows:

Turn off the top grille and unsolder the capsule leads. Then turn out the capsule with it's threaded holder ring. Now remove the switch knob '16' (2931Z1801). This will not be possible without breaking it. Further remove slider '15' (2931Z1701). Also this part will break and needs to be replaced. Now take the electronics of from the housing. When reassembling it may be useful to solder extension leads to the wires to the capsule. After attaching the threaded ring with capsule these wires can be removed again.

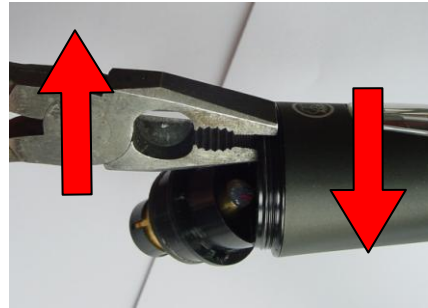
Zum Zerlegen des HT 400 gehen Sie bitte wie folgt vor:

Schrauben Sie die Kappe ab und entlöten Sie die Kapselanschlüsse. Jetzt können Sie die Kapsel mit dem Gewinding herausdrehen. Anschließend sind die Teile 16 (2931Z1801) und 15 (2931Z1701) zu entfernen. Diese werden dabei brechen und müssen ersetzt werden. Nun kann die Senderelektronik aus dem Gehäuserohr gezogen werden. Beim Zusammenbau kann es hilfreich sein, die Kapseldrähte mit Litzen zu verlängern. Diese können nach festschrauben der Kapsel wieder entfernt werden.

Open the HT450 housing / Öffnen des HT450 Gehäuses

Rotary motion
with a gripper

Drehbewegung
mit einer
Zange



or / oder

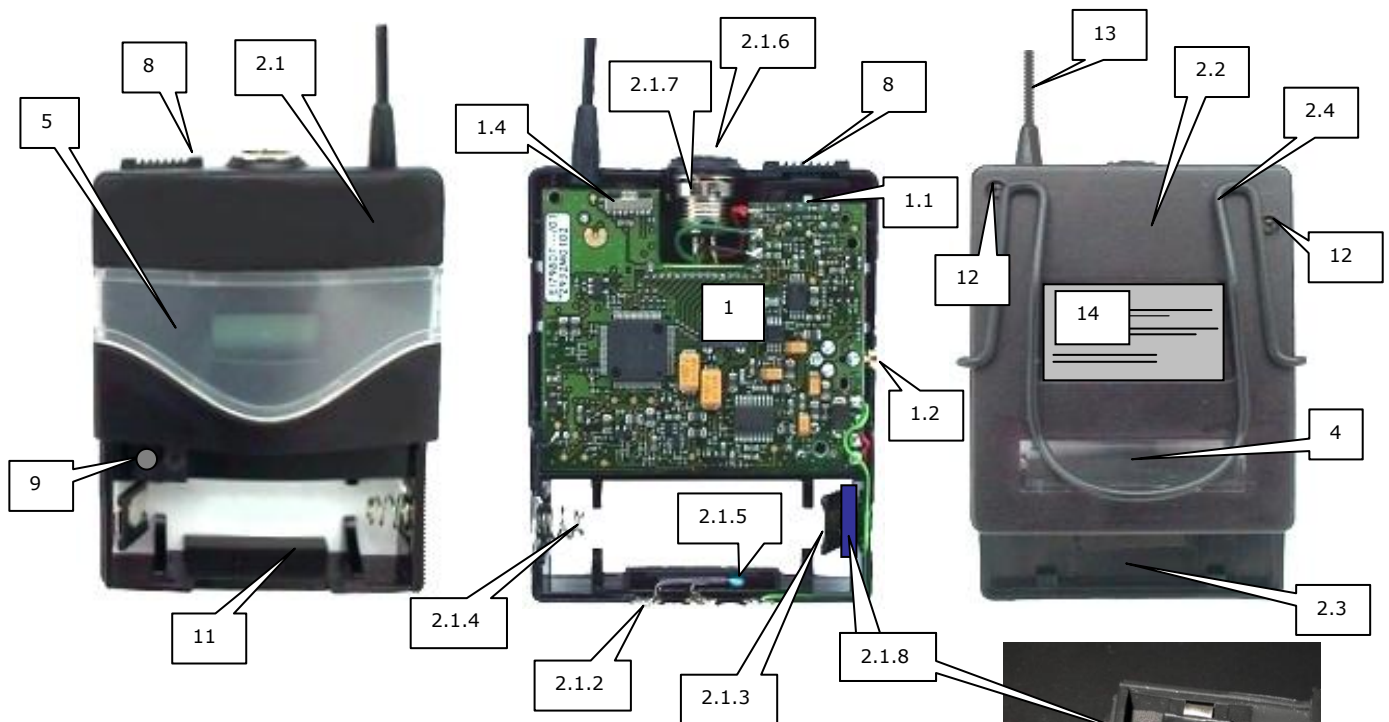


Rotary motion
with a special
tool

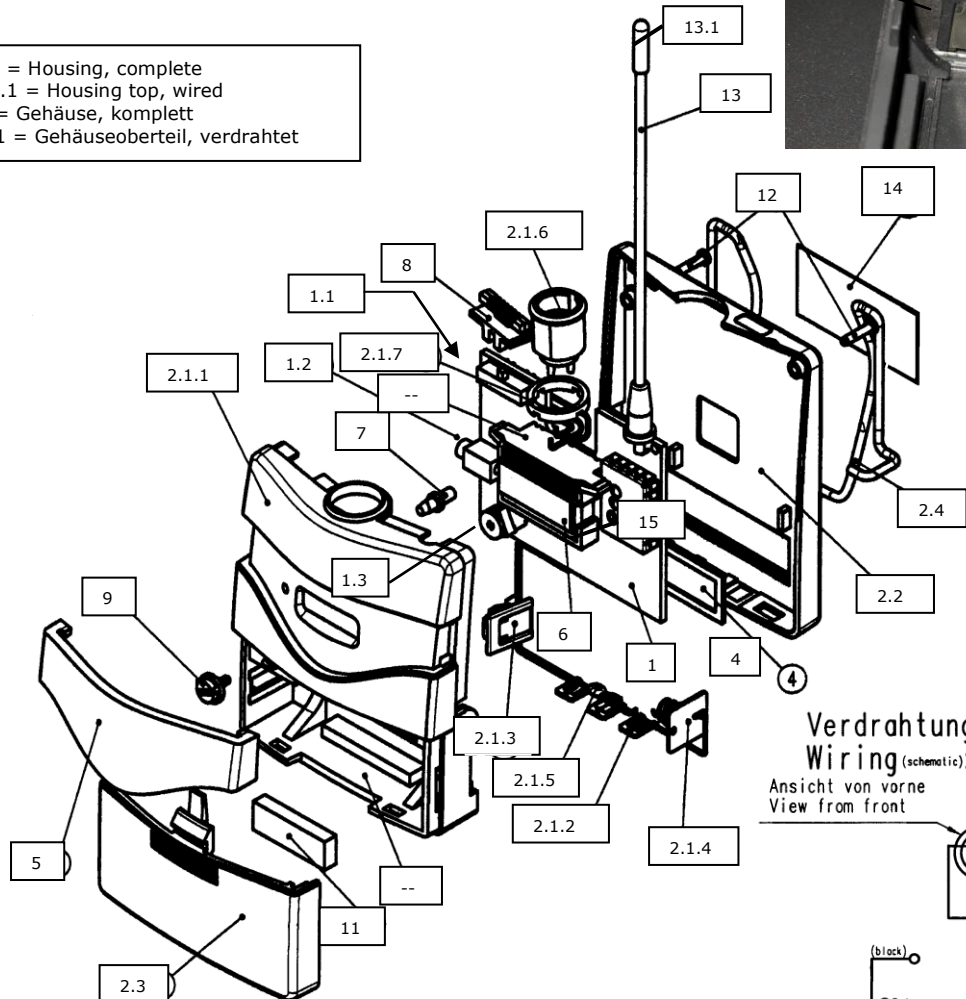
Drehbewegung
mit einem
Spezialwerkzeug



PT 400 (2932Z00..)
 PT 450 (3232Z00..)
 PT 470 (3302Z00..)

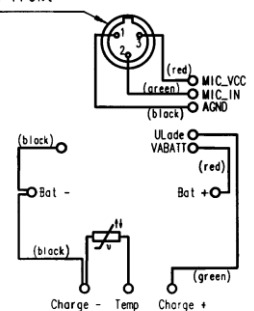


Item 2 = Housing, complete
 Item 2.1 = Housing top, wired
 Pos 2 = Gehäuse, komplett
 Pos 2.1 = Gehäuseoberteil, verdrahtet



Verdrahtung (schematic):
 Wiring (schematic):

Ansicht von vorne
 View from front



PT 400/450/470 Parts list

PT 400/450/470 Stückliste

PT400 ... A

PT450 ... B

PT470 ... C

| Description | Item Pos. | Part number Bestellnummer | Quantity Stück | | | Bezeichnung |
|---------------------------------|-----------|------------------------------|-------------------|---|---|----------------------------------|
| | | | A | B | C | |
| Printed circuit board, complete | 1 | 2932M.... *) 3232M.... *) | 1 | 1 | - | Print, komplett |
| Printed circuit board, complete | 1 | 3302M.... *) | 1 | 1 | 1 | Print, komplett |
| Slide switch | 1.1 | 0040E02120 | 1 | 1 | 1 | Schiebeschalter |
| Jack socket 3pole 2,5mm 'Mute' | 1.2 | 0017E03560 | 1 | 1 | 1 | Klinkenbuchse 3polig 2,5mm |
| Trimmer resistor | 1.3 | 0021E00710 | 1 | 1 | 1 | Trimpoti |
| IR-Transceiver | 1.4 | 9050E00040 | 1 | 1 | 1 | IR-Sende-Empfänger |
| Housing, complete | 2 | 3232M06010 | 1 | 1 | - | Gehäuse, komplett |
| Housing, complete | 2 | 3232M06020 | - | - | 1 | Gehäuse, komplett |
| Housing top, wired | 2.1 | 2932M04040 | 1 | 1 | 1 | Gehäuse Oberteil, verdrahtet |
| Charging contact | 2.1.2 | 2932Z20010 | 3 | 3 | 1 | Ladekontakt |
| Battery contact "+" | 2.1.3 | 2932M02010 | 1 | 1 | 1 | Batteriekontakt "+" |
| Battery contact "-" | 2.1.4 | 9999N07320 | 1 | 1 | 1 | Batteriekontakt "-" |
| NTC resistor | 2.1.5 | 0004E50000 | 1 | 1 | 1 | NTC – Widerstand |
| Mini-XLR - socket 3pole | 2.1.6 | 0016E03710 | 1 | 1 | 1 | Mini-XLR – Buchse 3polig |
| Nut for 2.1.6 | 2.1.7 | 3002Z15010 | 1 | 1 | 1 | Mutter für 2.1.6 |
| Battery contact damping | 2.1.8 | 2932Z34010 | 1 | 1 | 1 | Batteriekontakt Federung |
| Housing bottom | 2.2 | 2932Z11010 | 1 | - | - | Gehäuse Unterteil |
| Housing bottom | 2.2 | 2932Z11030 | - | 1 | 1 | Gehäuse Unterteil |
| Battery cover | 2.3 | 2932Z13010 | 1 | - | - | Batteriedeckel |
| Battery cover | 2.3 | 2932Z13040 | - | 1 | - | Batteriedeckel |
| Battery cover | 2.3 | 2932Z13070 | - | - | 1 | Batteriedeckel |
| Belt clip | 2.4 | 2932Z16010 | 1 | 1 | 1 | Gürtelspange |
| Window | 4 | 2932Z14010 | 1 | 1 | 1 | Fenster |
| Display cover | 5 | 2932Z15010 | 1 | 1 | - | Display - Abdeckung |
| Display cover | 5 | 2932Z15040 | - | - | 1 | Display - Abdeckung |
| Display | 6 | 2932Z27010 | 1 | 1 | 1 | Display |
| Light guide | 7 | 2932Z17010 | 1 | 1 | 1 | Lichtleiter |
| Slide button | 8 | 2932Z18010 | 1 | 1 | 1 | Schiebeknopf |
| Volume control button | 9 | 2932Z19010 | 1 | 1 | 1 | Lautstärkereglerknopf |
| Foam pad | 11 | 2932Z21010 | 1 | 1 | 1 | Schaumstoffstreifen |
| Screw PT KB 18x8 | 12 | 0099N18020 | 2 | 2 | 2 | Schraube PT KB 18x8 |
| Safety screw PT18x8 | 12 | 9999N07010 | 2 | 2 | 2 | Sicherheitsschraube PT18x8 |
| Antenna complete | 13 | 2932M030..**) | 1 | 1 | 1 | Antenne kompl. |
| Antenna cap | 13.1 | 2890Z18010 | 1 | 1 | 1 | Kappe |
| Device sticker | 14 | 4762S10.. ***) | 1 | - | - | Typenschild |
| Device sticker | 14 | 4788S10.. ***) | - | 1 | - | Typenschild |
| Device sticker | 14 | 4834S00.. ***) | - | - | 1 | Typenschild |
| Display holder | 15 | 2932Z24010 | 1 | 1 | 1 | Displayhalter |
| Mute plug | -- | 3002Z29010 | 2 | 2 | 2 | Mute – Stecker |
| Cable MK/GL | -- | 0110E02850 | 1 | 1 | - | Kabel MK/GL |
| Cable MK/GL neu | -- | 0110E03210 | - | 1 | 1 | Kabel MK/GL neu |
| Name-plate sheet, white | -- | 2932Z28010 | 1 | 1 | - | Blatt mit Einlageschildern, weiß |

*) Frequency-depending, please see table below for part numbers
part number 3221M.... is only for PT450 Bd VII and VIII

*) Frequenzabhängig, bitte Bestellnummern unten stehender Tabelle entnehmen
Bestellnummer 3232M.... ist nur für PT450 Bd VII and VIII

**) Last digit of part number is equal to number of frequency band (e.g. 2932M0305 for V-A, V-C and V-J)

**) Letzte Stelle der Teilenummer ist gleich der Nummer des Frequenzbandes (z.B.: 2932M0305 für V-A, V-C und V-J)

***) Last two digits of part number for item 14 = Number of the **product variation** (first line of table)

***) Letzte 2 Stellen der Teilenummer für Pos. 14 = Nummer der **Gerätevariante** (erste Zeile in Tabelle)

Main board PT400/450

| PT 400 2932Z00.. PT 450 3232Z00.. | | | | | | | | | | | | | |
|-----------------------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|----------------|------------|------------|------------|
| 2932Z00.. 3232Z00.. | 01 | 02 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 15 | 16 | 17 | 18 |
| 2932 M.... | I 50 | II 50 | V-F 10 | V-A 50 | V-C 20 | V-J 10 | V-E 50 | III 10 | III K10 | VI-A ISM 10 | I-R 30 | VII 50 | VIII 50 |
| 11510 | x | | | | | | | | | | | | |
| 11320 | | | | | | | | | | | x | | |
| 12510 | | x | | | | | | | | | | | |
| 13110 | | | | | | | | x | | | | | |
| 13120 | | | | | | | | | x | | | | |
| 15130 | | | | | | x | | | | | | | |
| 15150 | | | x | | | | | | | | | | |
| 15220 | | | | | x | | | | | | | | |
| 15510 | | | | x | | | | | | | | | |
| 15540 | | | | | | | x | | | | | | |
| 16110 | | | | | | | | | | x | | | |
| 3232 M.... | | | | | | | | | | | | VII 50 | VIII 50 |
| 17510 | | | | | | | | | | | | x | |
| 18510 | | | | | | | | | | | | | x |
| 4762S... | 10010 | 10020 | 10060 | 10070 | 10080 | 10090 | 10100 | 10110 | 10120 | 10150 | 10160 | - | - |
| 4788S... | 10010 | 10020 | 10060 | 10070 | 10080 | 10090 | 10100 | 10110 | 10120 | 10150 | 10160 | 10170 | 10180 |
| 2932M03.. L mm | 010 101 | 020 97 | 050 80 | 050 80 | 050 80 | 050 80 | 050 80 | 030 90 | 030 90 | 060 80 | 010 101 | 070 135 | 080 120 |



Main board PT470

| PT470 3302Z90... | | | | | | | | | | | | | | |
|------------------|---------|-----------|-------------|-----------|-----------|-----------|----------------|-----------|------------|----------|------------|---------|---------|---------|
| 3302 M.... | I 50 | III 50 | III-K 10 | V-A 50 | V-B 10 | V-D 10 | VI-A ISM-10 | VII 50 | VIII 50 | IX 50 | IX-U 50 | X 50 | D 10 | M 50 |
| 21510 | x | | | | | | | | | | | | | |
| 23510 | | x | | | | | | | | | | | | |
| 23520 | | | x | | | | | | | | | | | |
| 25510 | | | | x | | | | | | | | | | |
| 25520 | | | | | x | | | | | | | | | |
| 25540 | | | | | | x | | | | | | | | |
| 26110 | | | | | | | x | | | | | | | |
| 27510 | | | | | | | | x | | | | | | |
| 28510 | | | | | | | | | x | | | | | |
| 29510 | | | | | | | | | | x | | | | |
| 29520 | | | | | | | | | | | x | | | |
| 10510 | | | | | | | | | | | | x | | |
| 04100 | | | | | | | | | | | | | x | |
| 13500 | | | | | | | | | | | | | | x |

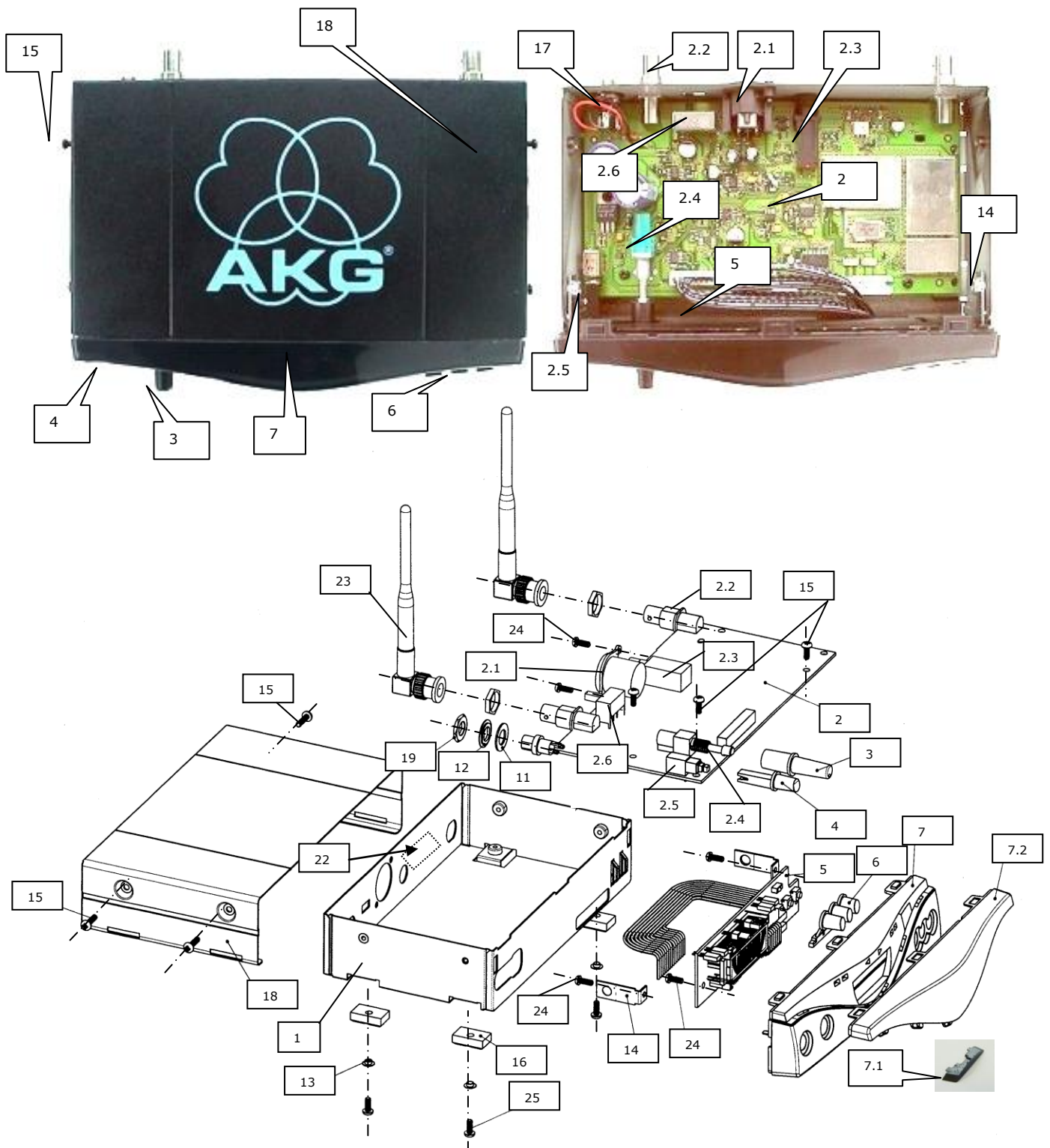
| Device sticker | | | | | | | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4834S | 00010 | 00190 | 00120 | 00070 | 00090 | 00060 | 00150 | 00170 | 00180 | 00140 | 00200 | 00220 | 00240 | 00230 |

| Antenna | | | | | | | | | | | | | | |
|--------------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|-----------|-----------|-----------|
| 2932 M03.. L... mm | 010 101 | 030 90 | 030 90 | 050 80 | 050 80 | 050 80 | 060 80 | 070 135 | 080 120 | 080 120 | 080 120 | 060 80 | 060 80 | 060 80 |

SR 400 (2930Z00..)

SR 450 (3230Z90..)

SR 470 (3300Z90..)



SR 400/450/470 Parts list

SR 400/450/470 Stückliste

SR 400 ... A SR 450 ... B SR 470 ... C

| Description | Pos. | Part number Bestellnummer | Quantity Stück | Quantity Stück | Quantity Stück | Bezeichnung |
|--|------|------------------------------|-------------------|-------------------|-------------------|------------------------------|
| | | | A | B | C | |
| Bottom-assy. | 1 | 2930M05010 | 1 | 1 | 1 | Bodenplatte |
| Printed circuit board, compl. | 2 | 2930M.... *) 3230M.... *) | 1 | 1 | - | Print, komplett |
| Printed circuit board, compl. | 2 | 3300M.... *) | - | - | 1 | Print, komplett |
| XLR-socket | 2.1 | 0016E03690 | 1 | 1 | 1 | XLR – Buchse |
| BNC-socket | 2.2 | 0017E02420 | 2 | 2 | 2 | BNC – Buchse |
| Stereo jack socket | 2.3 | 0017E03570 | 1 | 1 | 1 | Stereo – Klinkenbuchse |
| Potentiometer 'Volume' | 2.4 | 0021E00700 | 1 | 1 | 1 | Potentiometer 'Pegel' |
| ON/OFF switch | 2.5 | 0040E02130 | 1 | 1 | 1 | ON/OFF Schalter |
| Slide switch | 2.6 | 0040E02080 | 1 | 1 | 1 | Schiebeschalter |
| Volume button | 3 | 2930Z14010 | 1 | 1 | 1 | Knopf für Lautstärkeregler |
| ON/OFF button | 4 | 2930Z15010 | 1 | 1 | 1 | ON/OFF – Knopf |
| Front board, compl. | 5 | 2930M01010 | 1 | 1 | - | Front – Print, komplett |
| Front board, compl. | 5 | 3300M01010 | - | - | 1 | Front – Print, komplett |
| Push button switch | 5.1 | 0040E01970 | 3 | 3 | 3 | Druckschalter |
| Display with backlight | 5.2 | 0050E00030 | 1 | 1 | - | Display mit Beleuchtung |
| Display with backlight | 5.2 | 0050E00110 | - | - | 1 | Display mit Beleuchtung |
| Ribbon cable, 15-pole | 5.3 | 0110E02730 | 1 | 1 | 1 | Flachbandkabel, 15-polig |
| IR-Transceiver | 5.4 | 9050E00040 | 1 | 1 | 1 | IR-Transceiver |
| Button group | 6 | 2930Z12010 | 1 | 1 | 1 | Knopf – Gruppe |
| Front panel, compl. incl 7.1,7.2 | 7 | 2930M07010 | 1 | - | - | Frontplatte, komplett |
| Front panel, compl. incl 7.1,7.2 | 7 | 3230M07010 | - | 1 | - | Frontplatte, komplett |
| Front panel, compl. incl 7.1,7.2 | 7 | 3230M07020 | - | - | 1 | Frontplatte, komplett |
| Color clip black | 7.1 | 2930Z13010 | 1 | - | - | Farbclip schwarz |
| Color clip black | 7.1 | 2930Z13020 | - | 1 | 1 | Farbclip schwarz |
| Display cover | 7.2 | 2930Z11010 | 1 | - | - | Display – Abdeckung |
| Display cover | 7.2 | 2930Z11020 | - | 1 | - | Display – Abdeckung |
| Display cover | 7.2 | 2930Z11030 | - | - | 1 | Display – Abdeckung |
| IRDA window | 9 | 2930Z16010 | 1 | 1 | 1 | IRDA – Fenster |
| Insulating washer | 11 | 2930Z18010 | 1 | 1 | 1 | Isolierscheibe |
| Insulating disk | 12 | 2930Z19010 | 1 | 1 | 1 | Isolierscheibe |
| Spacer | 13 | 3000Z21010 | 4 | 4 | 4 | Hülse |
| Bracket | 14 | 2889Z16010 | 2 | 2 | 2 | Klammer |
| Screw M3x8 | 15 | 7985D30110 | 7 | 7 | 7 | Schraube M3x8 |
| Housing foot | 16 | 3000Z20010 | 4 | 4 | 4 | Gehäusefuß |
| DC-socket | 17 | 0110E02710 | 1 | 1 | 1 | DC-Buchse |
| Cover | 18 | 3000Z16030 | 1 | - | - | Deckel |
| Cover | 18 | 3000Z16020 | - | 1 | 1 | Deckel |
| Hexagonal nut | 19 | 2930Z21010 | 1 | 1 | 1 | Sechskantmutter |
| Sticker | 21 | 4717S00010 | 1 | 1 | 1 | Schild |
| Device sticker | 22 | 4761S00.. *) | 1 | - | - | Typenschild |
| Device sticker | 22 | 4790S10.. *) | - | 1 | 1 | Typenschild |
| Antenna, Bd 1,2,3,5,6,10,D,M | 23 | 0018E02240 | 2 | 2 | 2 | Antenne, Bd 1,2,3,5,6,10,D,M |
| Antenna long, Bd 7,8,9 | 23 | 9999N07440 | - | 2 | 2 | Antenne lang, Bd 7,8,9 |
| Screw PT KB 30x8 | 24 | 0099N30080 | 6 | 6 | 6 | Schraube PT KB 30x8 |
| Screw 3x12 | 25 | 7985D30120 | 4 | 4 | 4 | Schraube 3x12 |
| Power supplies, see page 16/ Netzteile, siehe Seite 16 | | | | | | |

*) Frequency-depending, please see table below for part numbers
part number 3230M.... is only for SR450 Bd VII and VIII

*) Frequenzabhängig, bitte Bestellnummern unten stehender Tabelle entnehmen
Bestellnummer 3230M.... ist nur für SR450 Bd VII and VIII

Main board SR400/450

| | SR400 2930Z00.. | | | | | | SR450 3230Z90.. | | | | | | |
|------------------------|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 2930Z00.. 3230Z90.. | 01 | 02 | 03 | 04 | 05 | 06 | 08 | 09 | 10 | 11 | 12 | 15 | 16 |
| 2930 M.... | I | II | III | III-K | V-A | V-C | V-J | V-F | V-E | VI-A | I-R | VII | VIII |
| 11510 | x | | | | | | | | | | | | |
| 12510 | | x | | | | | | | | | | | |
| 13110 | | | x | | | | | | | | | | |
| 13120 | | | | x | | | | | | | | | |
| 15510 | | | | | x | | | | | | | | |
| 15220 | | | | | | x | | | | | | | |
| 15130 | | | | | | | x | | | | | | |
| 15150 | | | | | | | | x | | | | | |
| 15540 | | | | | | | | | x | | | | |
| 16120 | | | | | | | | | | x | | | |
| 11320 | | | | | | | | | | | x | | |
| 3230 M.... | | | | | | | | | | | | VII | VIII |
| 17510 | | | | | | | | | | | | x | |
| 18510 | | | | | | | | | | | | | x |
| 4761S... | 00010 | 00020 | 00030 | 00040 | 00050 | 00060 | 00080 | 00090 | 00100 | 00110 | 00120 | - | - |
| 4790S... | 10010 | 10020 | 10030 | 10040 | 10050 | 10060 | 10080 | 10090 | 10100 | 10110 | 10120 | 10130 | 10140 |

Main board SR470

| | SR470 3300Z90... | | | | | | | | | | | | | |
|---------------|------------------|-----|-------|-----|-----|-----|-------------|-----|------|----|------|---|---|---|
| 3300 M.... | I | III | III-K | V-A | V-B | V-D | VI-A ISM | VII | VIII | IX | IX-U | X | D | M |
| 21510 | x | | | | | | | | | | | | | |
| 23510 | | x | | | | | | | | | | | | |
| 23520 | | | x | | | | | | | | | | | |
| 25510 | | | | x | | | | | | | | | | |
| 25520 | | | | | x | | | | | | | | | |
| 25540 | | | | | | x | | | | | | | | |
| 26110 | | | | | | | x | | | | | | | |
| 27510 | | | | | | | | x | | | | | | |
| 28510 | | | | | | | | | x | | | | | |
| 29510 | | | | | | | | | | x | | | | |
| 29520 | | | | | | | | | | | x | | | |
| 10510 | | | | | | | | | | | | x | | |
| 04100 | | | | | | | | | | | | | x | |
| 13500 | | | | | | | | | | | | | | x |

| | Device sticker | | | | | | | | | | | | | |
|-------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4832S | 00010 | 00150 | 00040 | 00050 | 00080 | 00060 | 00100 | 00130 | 00140 | 00070 | 00160 | 00220 | 00240 | 00230 |

Power supplies WMS400/450/470

| | WMS products Power rating | WMS400/450 12V,500mA | CU400 5V, 2A |
|-------------------------------------|------------------------------|-------------------------|-----------------|
| Actual power supply SMPS level 5 | Power supply EU,US,UK,AU | 7801H00120 | 0027E00840 |

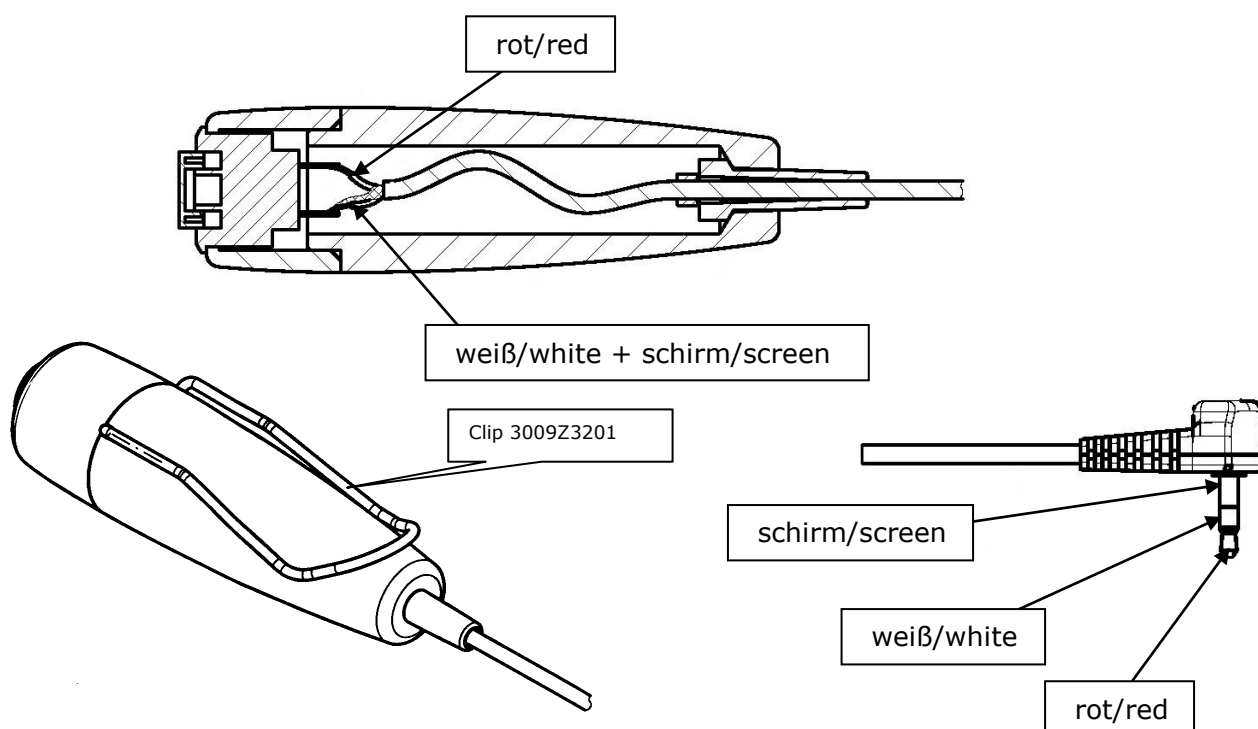
Note! To be considered in a case of a defective power supply. All SR400/450 and SR470 which are not marked with "SMPS" will need the power supply 7801H00100 or 7801H00110. Because of the high inrush current, this can't be handled by the actual 500mA power supply.

'RMU' Rack mount elements / 'RMU' Rack-Montageelemente

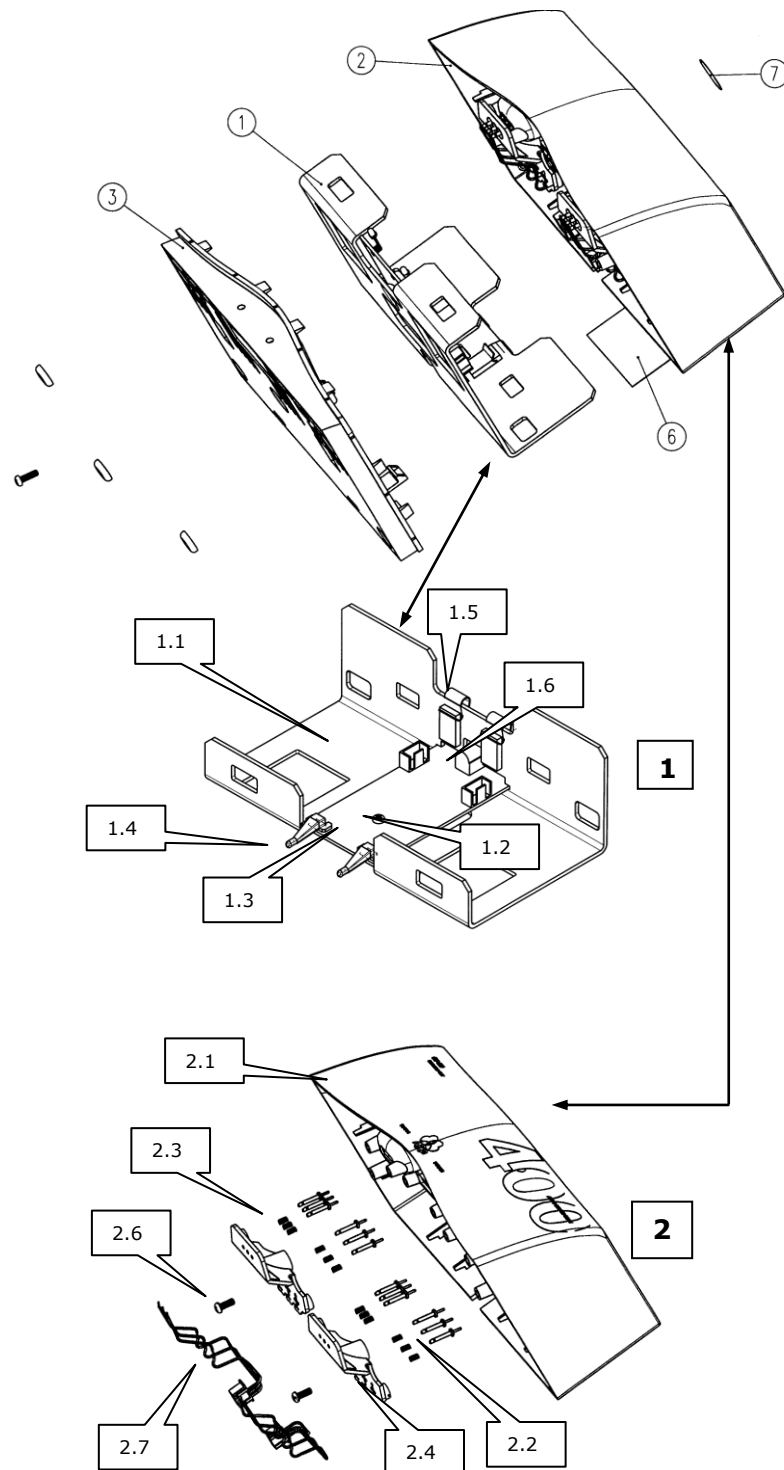
| | Part number Bestellnummer | Quantity Stück | Description |
|--------------------|------------------------------|-------------------|---|
| RMU1 | 3000Z25020 | 1 | long front as necessary for one item in a 19" rack, short side / lange Frontseite, kurzer Seitenschenkel, wird für ein Gerät in 19" Rack benötigt |
| RMU2 | 3000Z26010 | 1 | coupling piece for two items, to be inserted instead of housing feet / Koppelstück für zwei Geräte. Wird statt der Gehäusefüsse montiert |
| RMU4 | 3000Z27020 | 1 | short front, short side / kurze Frontseite, kurzer Seitenschenkel |
| Cover Abdeckung | 9999N05810 | 2 | for antenna socket holes of RMU1 and RMU4 für Antennenöffnungen in RMU1 und RMU4 |

RMS 4000 3009Z00120

REMOTE MUTE SWITCH / MUTE-FERNSCHALTER



CU400 (2934Z00..)



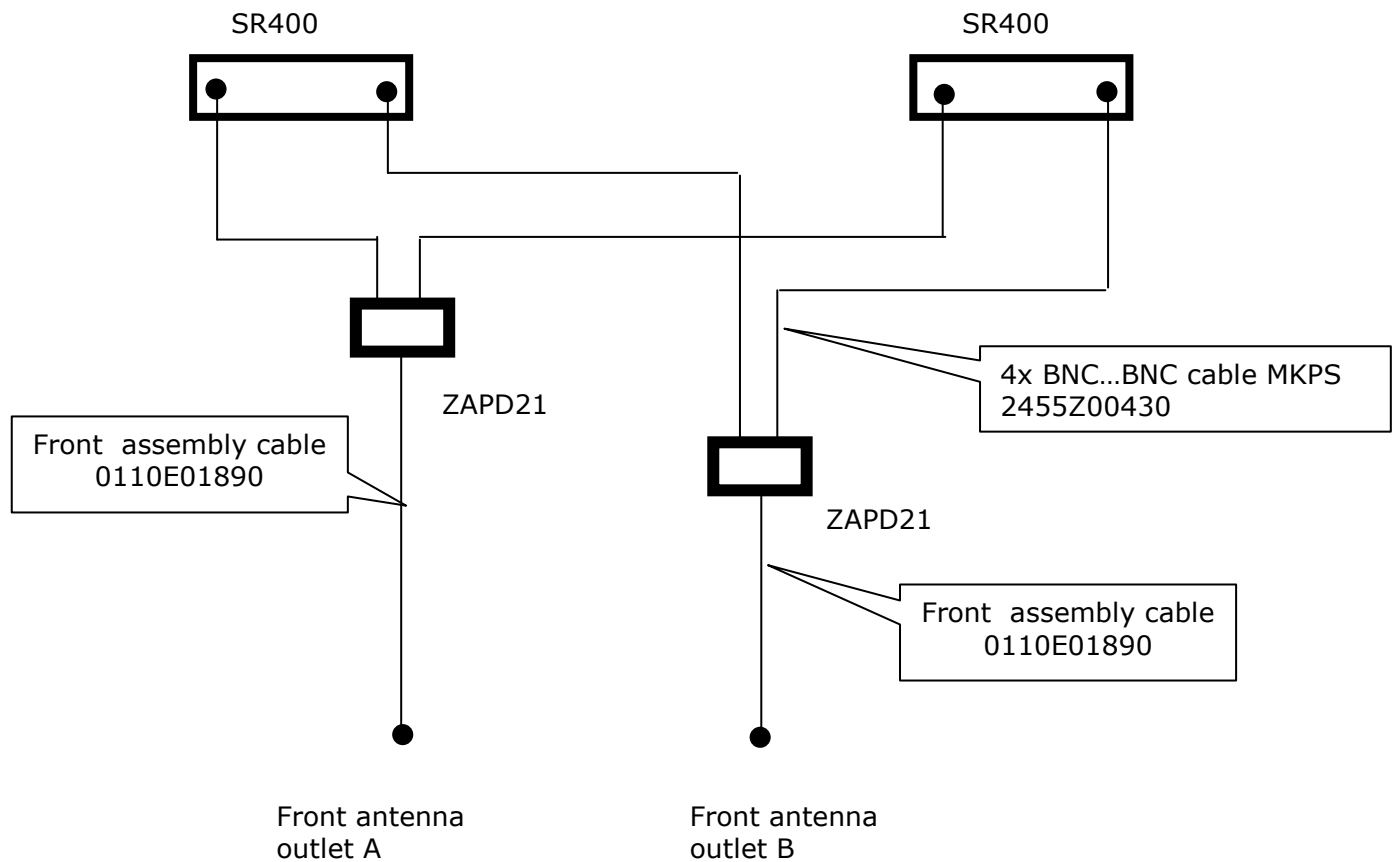
CU 400 Parts list

2934Z00..

CU 400 Stückliste

| <i>Description</i> | <i>Pos.</i> | <i>Part number Bestellnummer</i> | <i>Quantity Stück</i> | <i>Bezeichnung</i> |
|---------------------------------|----------------|--------------------------------------|---------------------------|-------------------------------|
| Printed circuit board, complete | 1 | 2934M01010 | 1 | Print, komplett |
| Metal plate | 1.1 | 2934Z12010 | 1 | Metallplatte |
| Screw M3x8 | 1.2 | 7500D30000 | 1 | Schraube M3x8 |
| Light guide | 1.4 | 2934Z16010 | 2 | Lichtleiter |
| Transistor clip | 1.5 | 0013E02010 | 2 | Transistorklammer |
| DC - socket | 1.6 | 0018E02210 | 1 | DC - Buchse |
| Housing, top assembly | 2 | 2934M11010 | 1 | Gehäuse - Oberteil |
| Housing top | 2.1 | 2934Z10010 | 1 | Gehäuse - Oberteil |
| Contact pin | 2.2 | 2934Z14010 | 12 | Kontaktstift |
| Spring | 2.3 | 9999N06890 | 12 | Feder |
| Contact part | 2.4 | 2934Z13010 | 2 | Kontaktteil |
| Screw 30x10 | 2.6 | 0099N30020 | 2 | Schraube 30x10 |
| Cable assembly | 2.7 | 2934M10010 | 2 | Kabelsatz |
| Housing, bottom | 3 | 2934Z11020 | 1 | Gehäuse - Unterteil |
| Foot | 4 | 9999N06930 | 4 | Fuß |
| Screw 30x10 | 5 | 0099N30020 | 2 | Schraube 30x10 |
| Sticker | 6 | 9110U33650 | 1 | Schild |
| Sticker | 7 | 3000Z37010 | 1 | Schild |
| Rechargeable battery | -- | 0026E00250 | 2 | Akku |

Connection Diagram for two receivers SR 400 and front antenna sockets
Blockschaltbild für zwei SR 400 mit Frontantennen



Splitters ZAPD21 and cables 0110E01890 are available from AKG Service
 ZAPD21 und Kabel 0110E01890 sind über AKG Service erhältlich